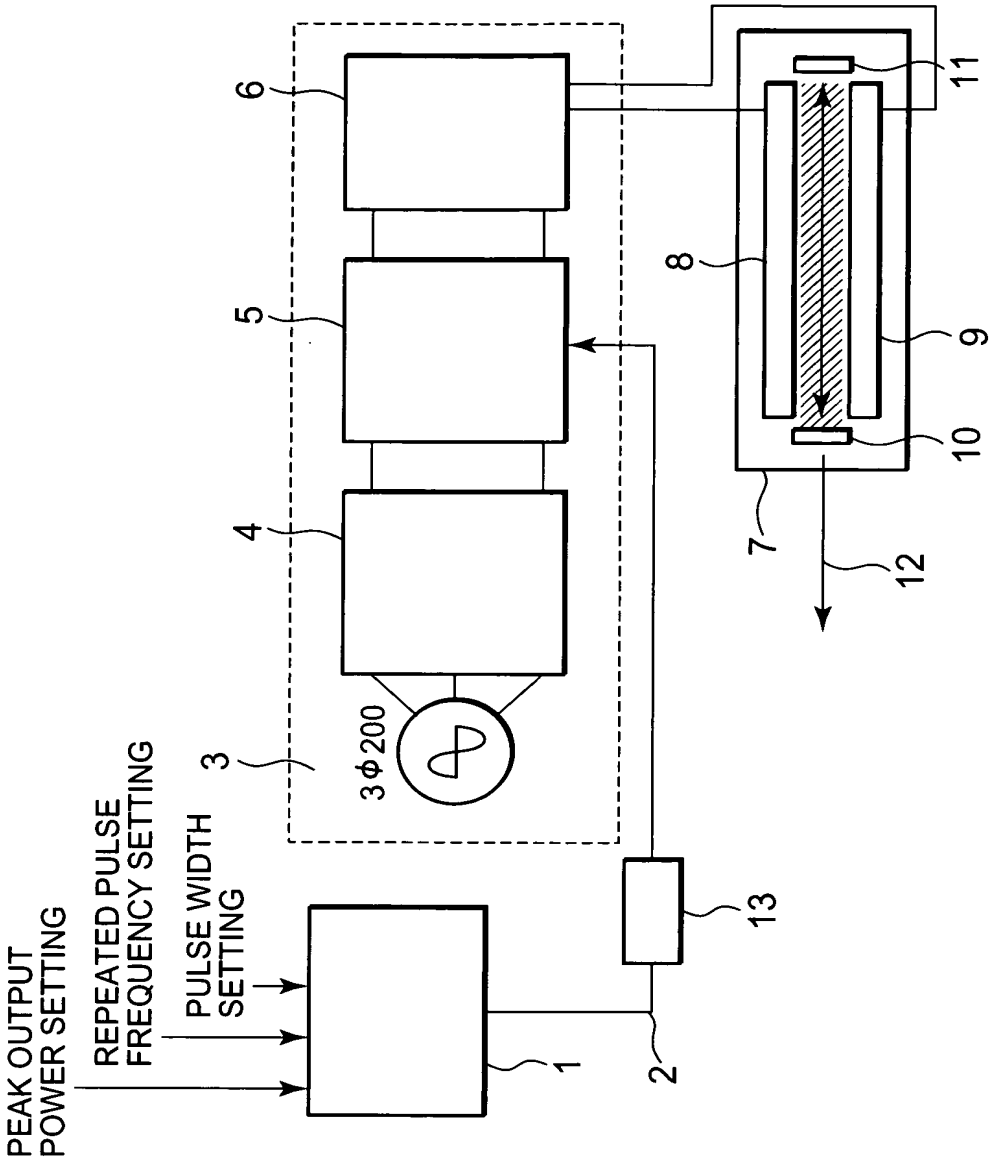
FIG. 1


PEAK OUTPUT POWER SETTING
REPEATED PULSE FREQUENCY SETTING
PULSE WIDTH SETTING
1
2
3
3φ200
4
5
6
7
8
9
10
11
12
13

Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
2 of 13
10/517656

FIG. 2

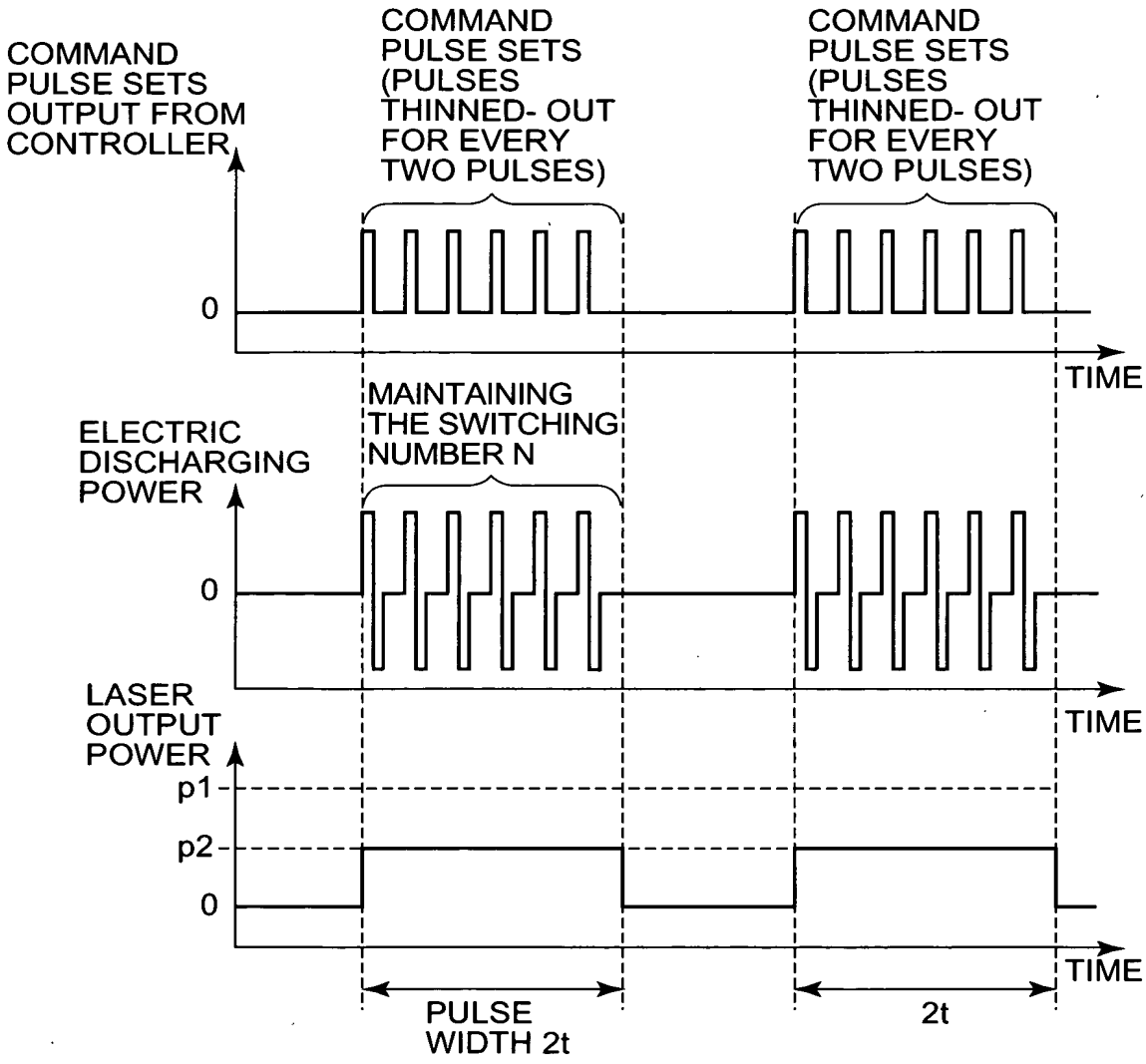
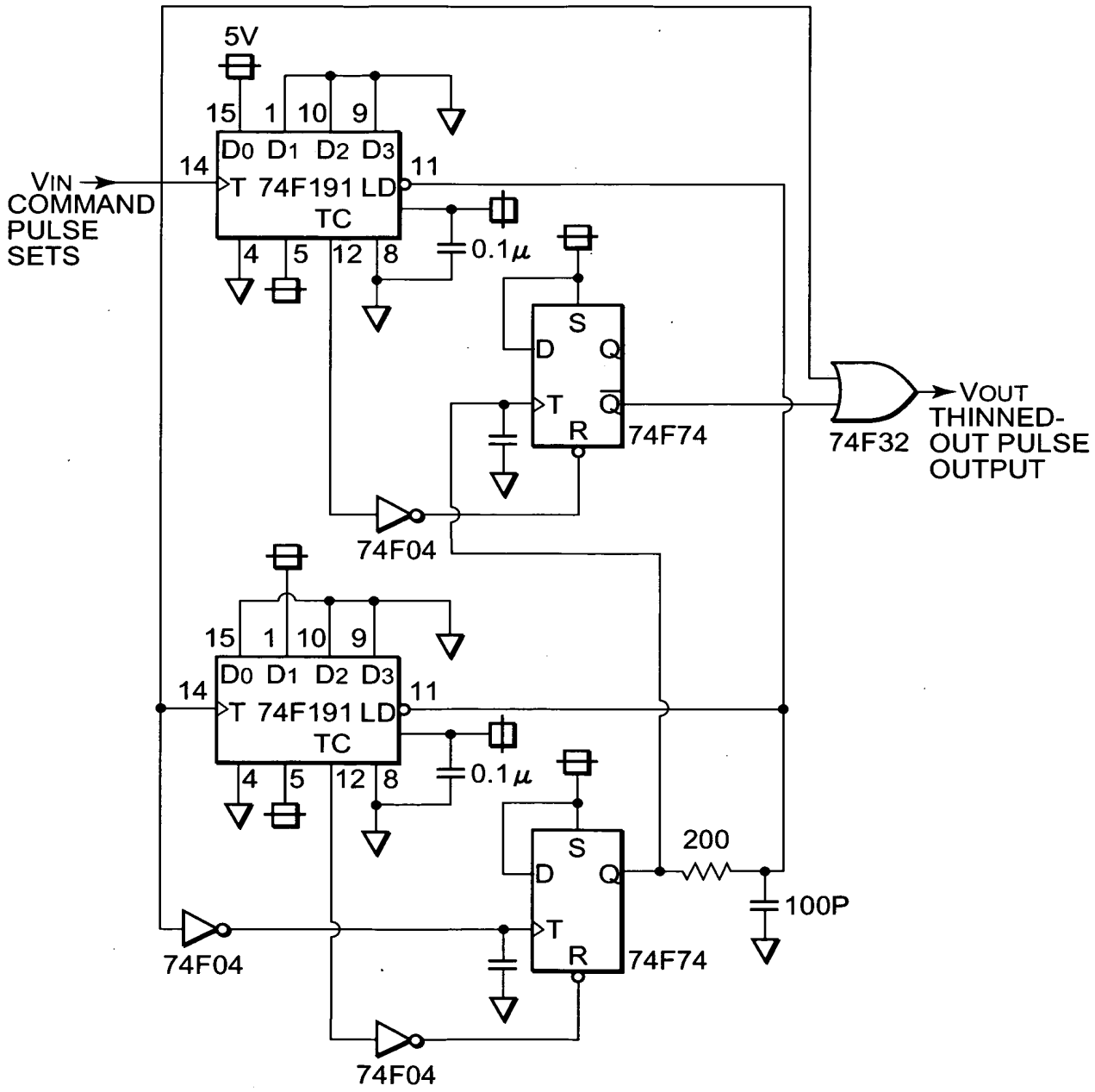
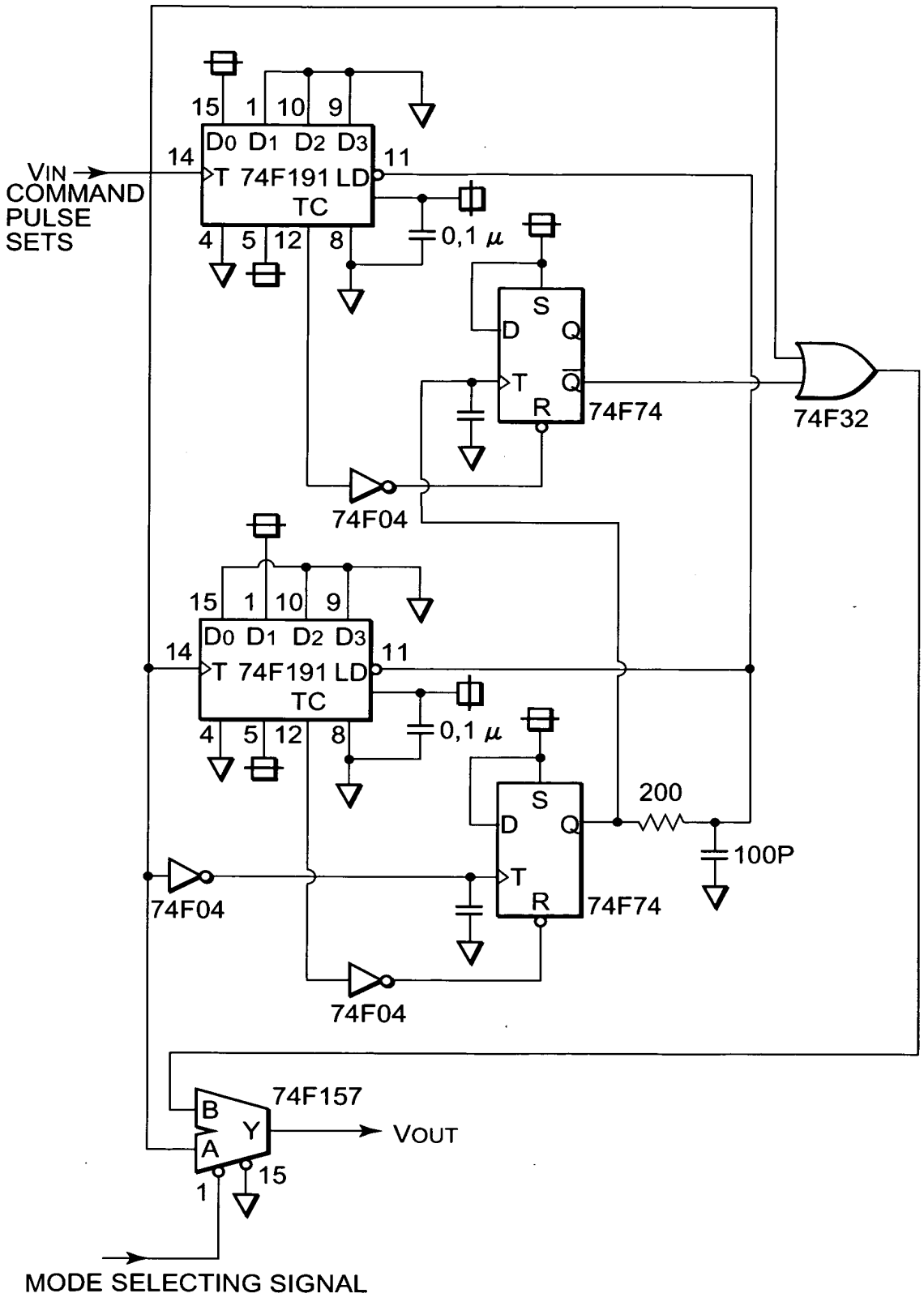


FIG. 3


5V
15
1
10
9
D0 D1 D2 D3
14
T 74F191 LD
11
TC
4
5
12
8
0.1μ
VIN
COMMAND
PULSE
SETS
S
D
Q
T
Q
R
74F74
74F32
VOUT
THINNED-
OUT PULSE
OUTPUT
74F04
200
100P

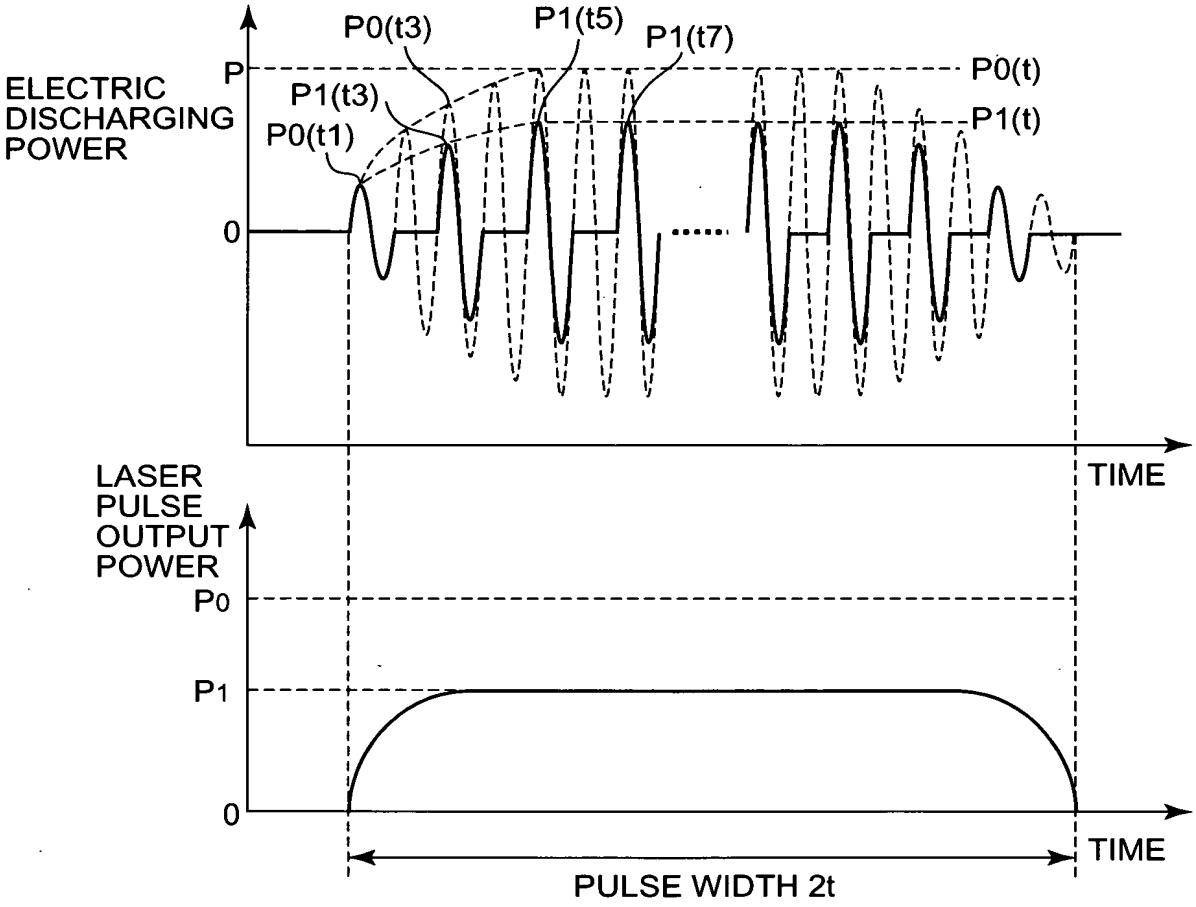
Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND
CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
4 of 13
10/517656

FIG. 4



Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND
CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
5 of 13
10/517656

FIG. 5



Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
6 of 13
10/517656

FIG. 6(a)

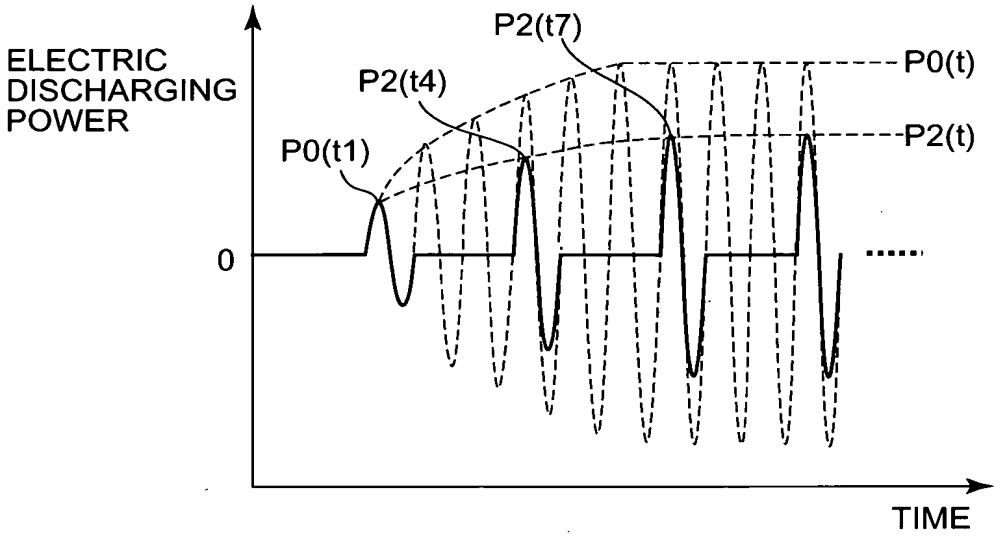
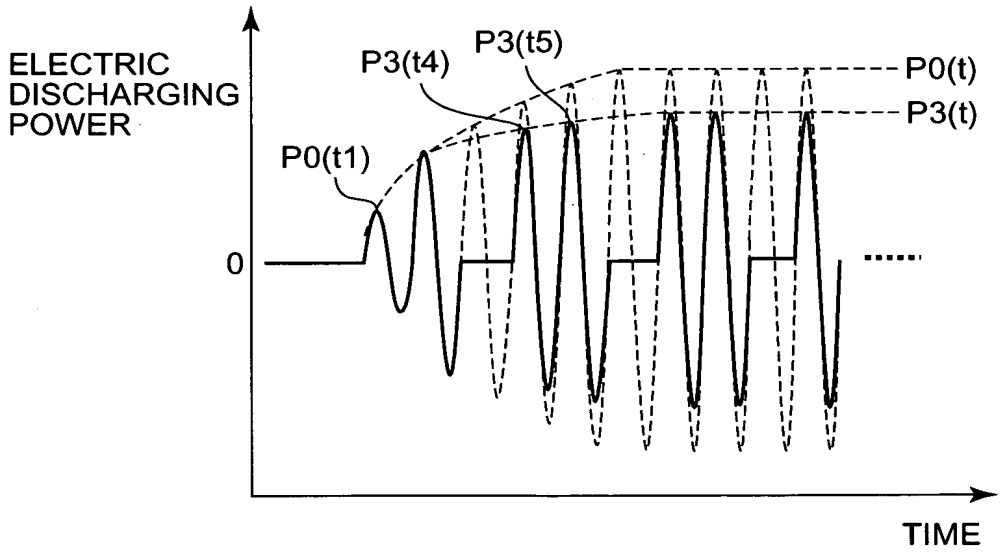
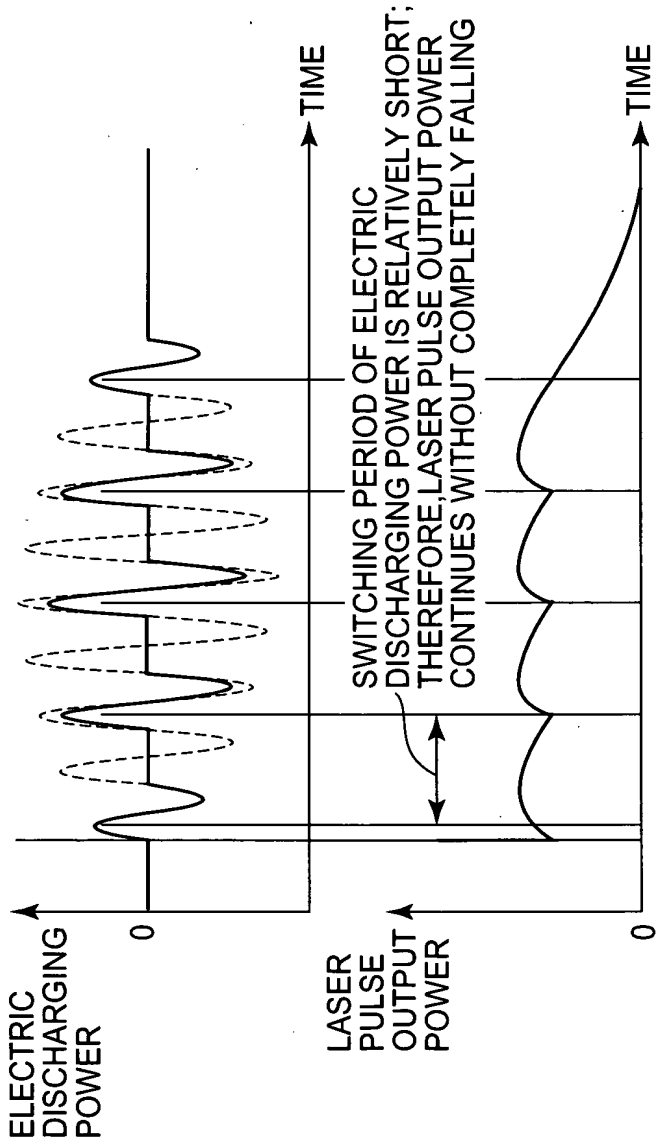


FIG. 6(b)



Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND
CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
7 of 13 10/517656

FIG. 7

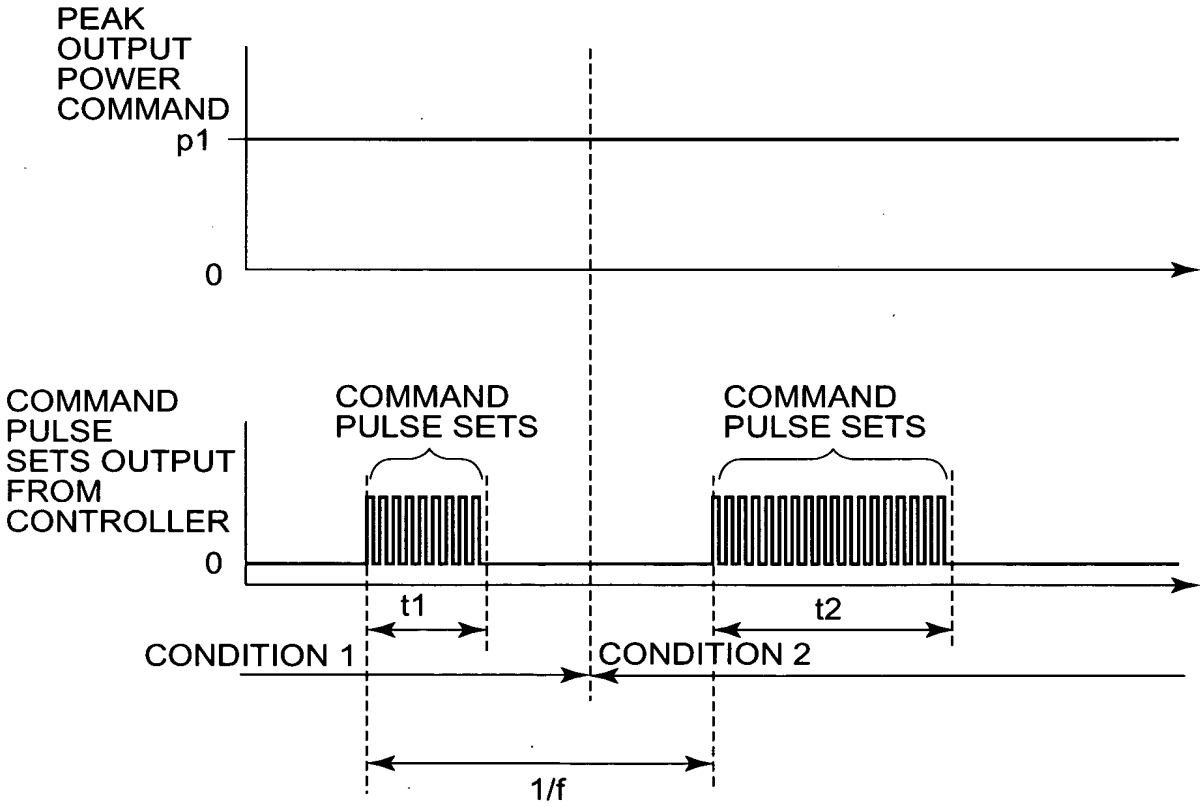


Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
8 of 13 10/517656

FIG. 8

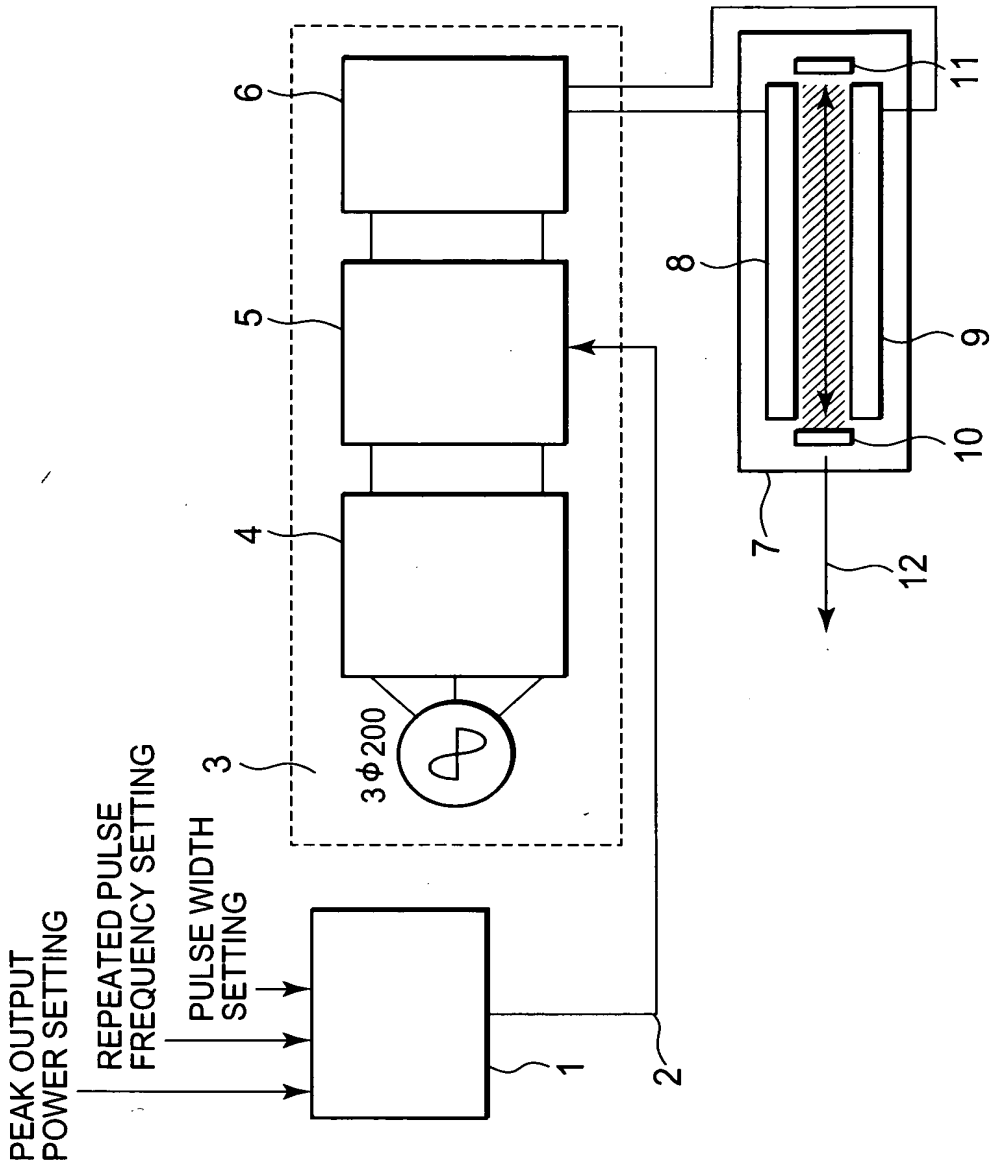
EXAMPLE OF CONTROL PARAMETER SETTING

	PEAK OUTPUT POWER	REPEATED PULSE FREQUENCY	PULSE WIDTH	PULSE WIDTH MODE (THINNING OUT NUMBER SETTING)
CONDITION 1	p1	f	t1	SHORT MODE
CONDITION 2	p1	f	t2	LONG MODE



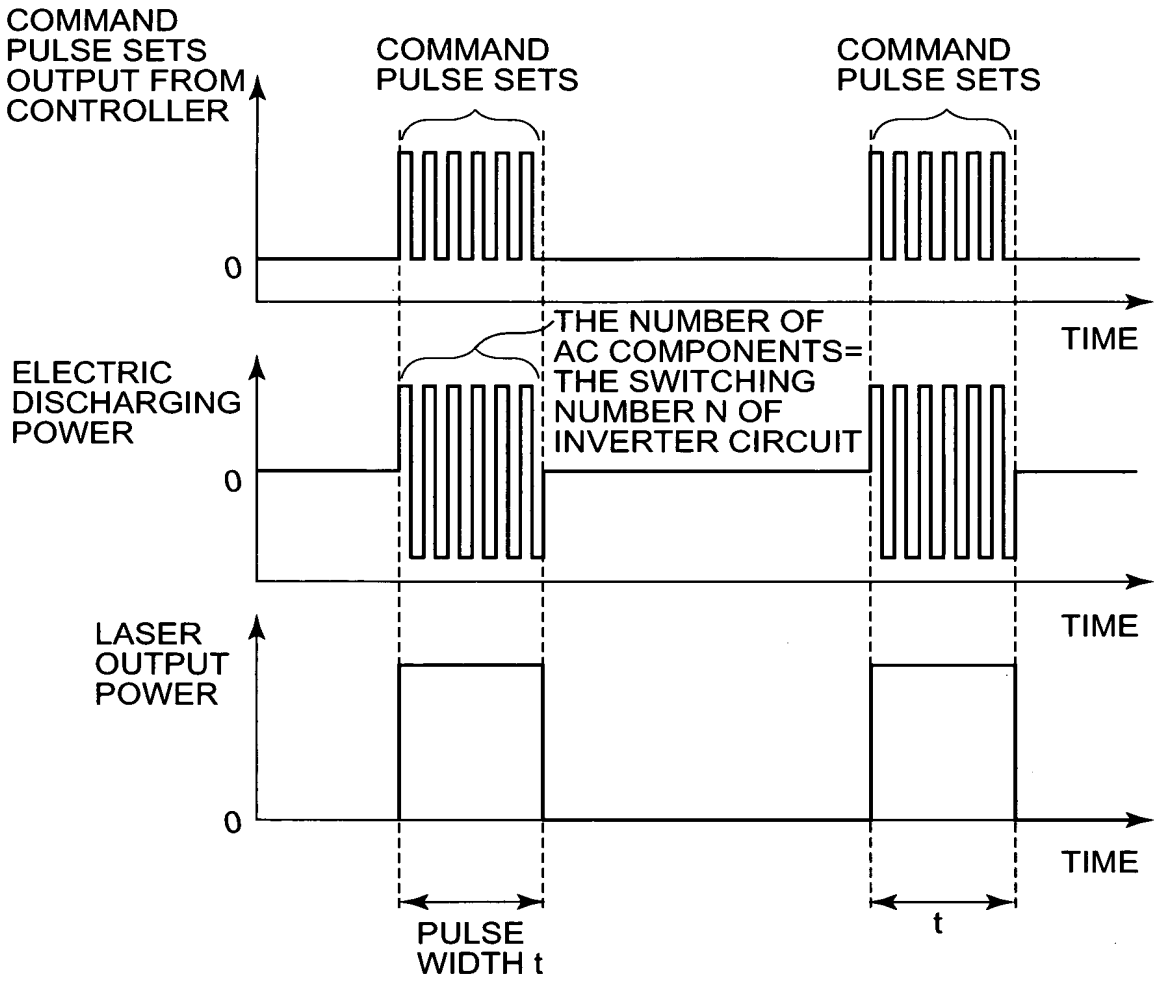
Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND
CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
9 of 13
10/517656

FIG. 9



Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND
CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
10 of 13 10/517656

FIG. 10

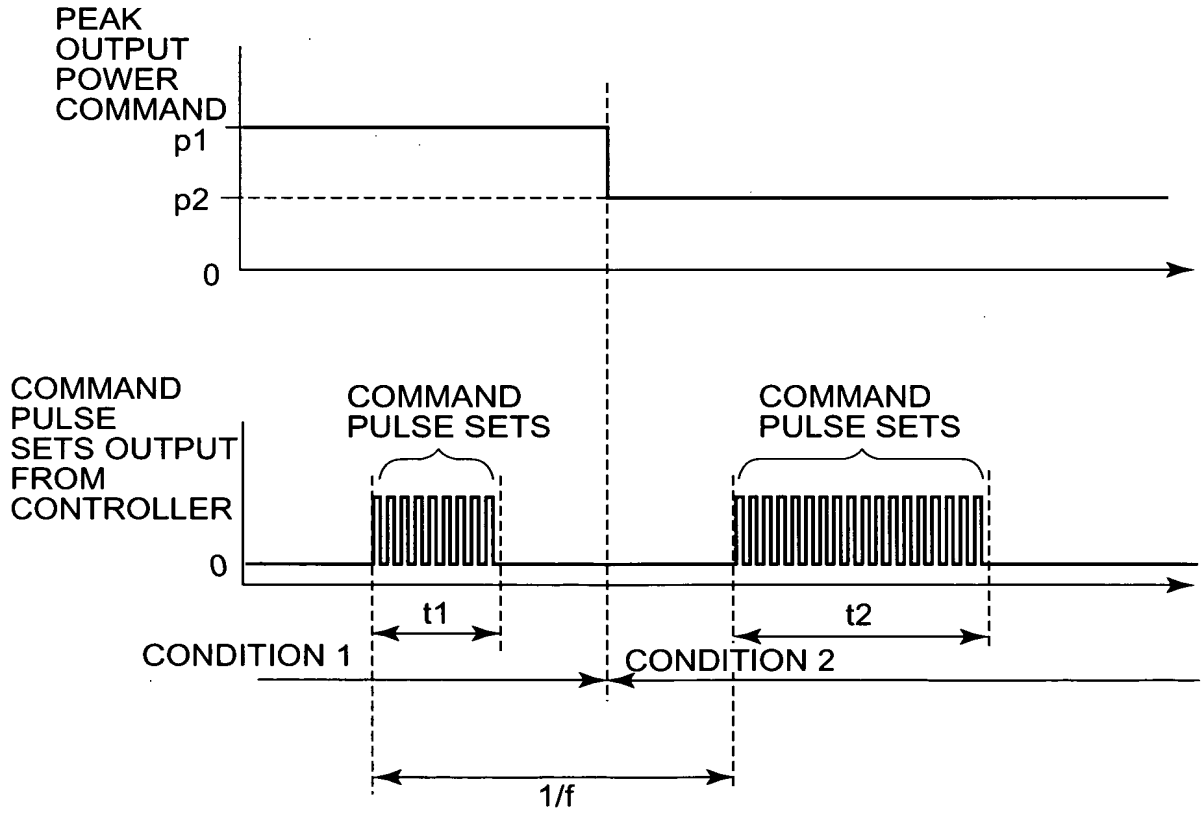


Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND
CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
11 of 13 10/517656

FIG. 11

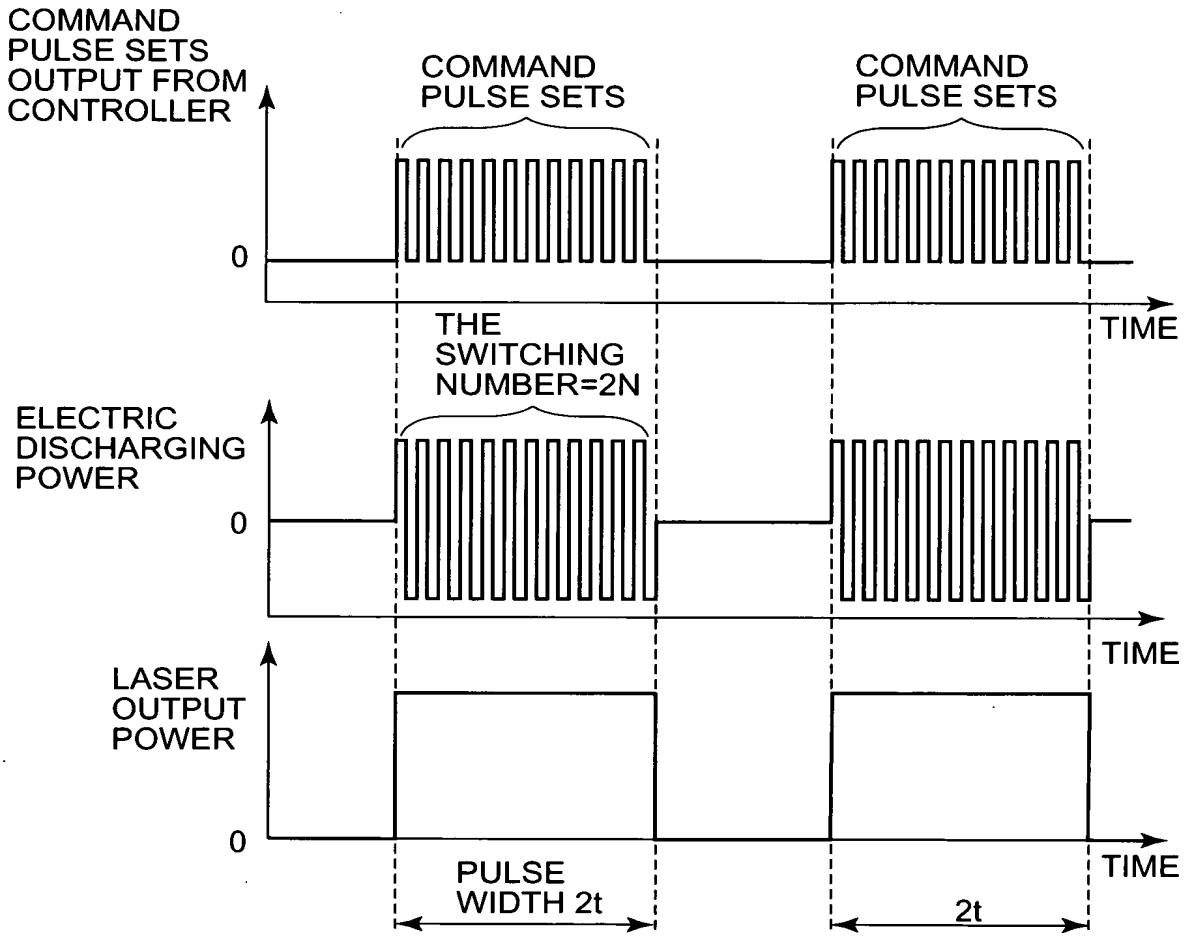
EXAMPLE OF CONTROL PARAMETER SETTING

	PEAK OUTPUT POWER	REPEATED PULSE FREQUENCY	PULSE WIDTH
CONDITION 1	p1	f	t1
CONDITION 2	p2	f	t2



Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND
CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner 202-293-7060
12 of 13 10/517656

FIG. 12



Hitoshi KIDOKORO et al Q84298
LASER MACHINING APPARATUS AND CONTROL METHOD FOR THE ....
Filing Date: December 13, 2004
Richard C. Turner, 202-293-7060
13 of 13
10517656

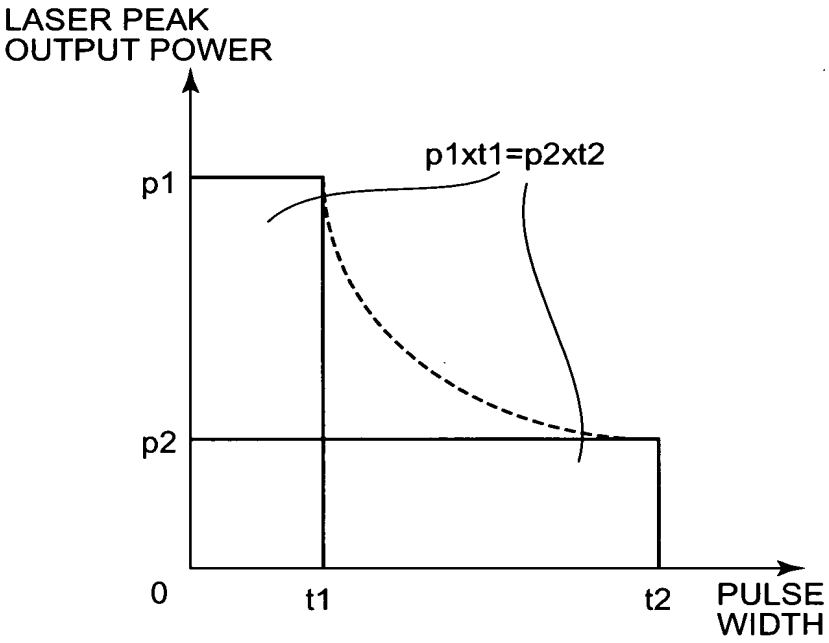



FIG. 13